

AMENDMENTS TO THE CLAIMS:

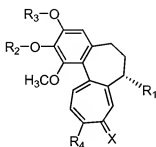
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1-11. (Canceled)

12. (Currently Amended) A tricyclic derivative represented by the following <Formula 1> or pharmaceutically acceptable salts thereof:

<Formula 1>



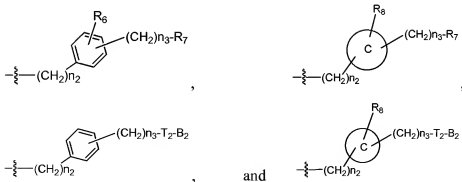
wherein

(1) R_1 is $-T_1-B_1$;

wherein

T_1 is $-N(R_3)C(X_2)-$, wherein X_2 is O, and R_3 is H or C_1 to C_5 alkyl group; and

B_1 is selected from the group consisting of



wherein,

R_6 is halogen, hydroxy, C_1 - C_3 alkoxy, amino, nitro, cyano or C_1 - C_3 lower alkyl group;

R₈ is H, halogen, hydroxy, C₁-C₃ alkoxy, amino, nitro, cyano or C₁-C₃ lower alkyl group;

R₇ is halogen, hydroxyl, mercapto, -ONO, ONO₂ or SNO;



is selected from the group consisting of



C1



C7



C11



C12

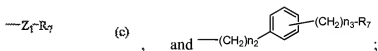
, C7, C11, and C12;

wherein, C1 (pyridyl group) is substituted at position 2 and 6 or position 2 and 5, C7 (pyrrolyl group) is substituted at position 2 and 5 or position 2 and 4, C11 (thiophenyl group) and C12 (furanyl group) are substituted symmetrically or asymmetrically;

Z₁ is C₁-C₁₀ straight-chain or branched-chain alkyl group;

T₂ is -X₁-C(X₂)-, in that X₁ and X₂ are each independently O;

B₂ is selected from the group consisting of:



n₂ is an integer of 0-3; and

n₃ is an integer of 1-5;

(2) R₂ and R₃ are each independently H, -PO₃H₂, phosphonate, sulfate, C₃-C₇ cycloalkyl, C₂-C₇ arkenyl, C₂-C₇ alkynyl, C₁-C₇ alkanoyl, C₁-C₇ straight-chain or branched-chain alkyl or sugar, in which sugar is a monosaccharide such as glucuronyl, glucosyl or galactosyl;

(3) R₄ is OCH₃, SCH₃ or NR₁₀R₁₁, in which R₁₀ and R₁₁ are each independently H or C₁-5 alkyl; and

(4) X is O or S.

13. (Previously Presented) The tricyclic derivative or pharmaceutically acceptable salts thereof as set forth in claim 12,

wherein

R₂ and R₃ are each independently C₃-C₇ cycloalkyl or C₁-C₇ alkyl; and

R₄ is SCH₃ or OCH₃.

14-15. (Canceled)

16. (Currently Amended) The tricyclic derivative or pharmaceutically acceptable salts thereof as set forth in claim 12, wherein Z₁ is C₂[[~]]C₅ straight-chain or branched-chain alkyl group or cycloalkyl group having substituent.

17. (Currently Amended) A tricyclic derivative or pharmaceutically acceptable salts thereof, wherein the tricyclic derivative comprises:

1)

6-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfonyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-nicotineamide;

2) 5-nitrooxymethyl-furan-2-carboxylic

acid-[(7S)-1,2,3-trimethoxy-10-methylsulfonyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-amide;

5) 6-nitrooxymethyl-pyridine-2-carboxylic

acid-[(7S)-1,2,3-trimethoxy-10-methylsulfonyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-amide;

6) 5-nitrooxymethyl-thiophene-2-carboxylic

acid-[(7S)-1,2,3-trimethoxy-10-methylsulfonyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-amide;

8)

N-[(7S)-3-ethoxy-1,2-dimethoxy-10-methylsulfonyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-2-fluoro-3-nitrooxymethyl-benzamide;

9)

2-fluoro-N-[(7S)-3-isopropoxy-1,2-dimethoxy-10-methylsulfonyl-9-oxo-5,6,7,9-tetrahydro-benz[o]heptalen-7-yl]-3-nitrooxymethyl-benzamide;

10)

2-fluoro-3-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

11)

N-[(7S)-3-cyclopentyloxy-1,2-dimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-2-fluoro-3-nitrooxymethyl-benzamide;

12)

3-fluoro-5-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

13)

N-[(7S)-3-ethoxy-1,2-dimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-3-fluoro-5-nitrooxymethyl-benzamide;

14)

3-fluoro-N-[(7S)-3-isopropoxy-1,2-dimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzof[a]heptalen-7-yl]-5-nitrooxymethyl-benzamide;

15)

N-[(7S)-3-cyclopentyloxy-1,2-dimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-3-fluoro-5-nitrooxymethyl-benzamide;

16)

4-fluoro-3-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

17)

2-fluoro-5-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

18)

3-hydroxy-5-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

19)

3,5-bis-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

20)

2-hydroxy-4-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

21) 4-nitrooxymethyl-thiophene-2-carboxylic acid

[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-amide;

22) 3-nitrooxymethyl-thiophene-2-carboxylic acid

[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-amide;

25) 3-nitrooxybenzoic

acid-5-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-pyridine-2-yl-methylester;

26) 4-nitrooxybutyric

acid-5-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-pyridine-2-yl-methylester;

27) 3-nitrooxymethyl-benzoic

acid-6-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-pyridine-2-yl-methylester;

28) 4-nitrooxybutyric

acid-6-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-pyridine-2-yl-methylester;

29) 3-nitrooxymethyl-benzoic

acid-2-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-phenylester;

30) 4-nitrooxybutyric

acid-2-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-phenylester;

31) 3-nitrooxymethyl-benzoic

acid-3-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-phenylester;

32) 4-nitrooxybutyric

acid-3-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-phenylester;

33) 3-nitrooxymethyl-benzoic

acid-3-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-benzylester;

34) 4-nitrooxybutyric

acid-3-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl-carbamoyl]-benzylester;

37)

3-fluoro-5-nitrosooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

39)

3-fluoro-5-nitrosothiomethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

40)

3-fluoro-5-nitrooxymethyl-N-[(7S)-1,2,3,10-tetramethoxy-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

42)

3-fluoro-N-methyl-5-nitrooxymethyl-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-benzamide;

43)

2-(3-fluoro-5-nitrooxymethyl-phenyl)-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-acetamide; or

44)

2-(2-fluoro-5-nitrooxymethyl-phenyl)-N-[(7S)-1,2,3-trimethoxy-10-methylsulfanyl-9-oxo-5,6,7,9-tetrahydro-benzo[a]heptalen-7-yl]-acetamide.

18. (Previously Presented) An anticancer agent composition or anti-proliferation agent composition comprising the tricyclic derivatives or pharmaceutically acceptable salts thereof as set forth in claim 12 as an effective ingredient and a pharmaceutically acceptable excipient.

19. (Previously Presented) An angiogenesis inhibitor composition comprising the tricyclic derivatives or pharmaceutically acceptable salts thereof as set forth in claim 12 as an effective ingredient and a pharmaceutically acceptable excipient.
20. (Previously Presented) An anticancer agent composition or anti-proliferation agent composition comprising the tricyclic derivatives or pharmaceutically acceptable salts thereof as set forth in claim 17 as an effective ingredient and a pharmaceutically acceptable excipient.
21. (Previously Presented) An angiogenesis inhibitor composition comprising the tricyclic derivatives or pharmaceutically acceptable salts thereof as set forth in claim 17 as an effective ingredient and a pharmaceutically acceptable excipient.